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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,419	04/20/2004	Hiroshi Yuasa	MAE 310	2584
23995	7590	03/08/2005	EXAMINER	
RABIN & Berdo, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			NGUYEN, ANTHONY H	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/827,419

Applicant(s)

YUASA, HIROSHI

Examiner

Anthony H. Nguyen

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/20/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 8-17 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Hino et al. (US 6,002,906) in view of Johdai et al. (US 5,037,083).

With respect to claims 1, 8, 13, 14 and 15, Hino et al. teaches an image forming apparatus having an image forming unit 5-7 which includes a transport unit 2,5 and 8 for transporting the recording medium to the image forming units Pc, Pm, Py, Pk, a return unit 9, 9a (Hino et al. , Fig.1) for reversing and feeding the medium to the image forming unit for printing on another side of the printing medium and a control unit 301 for setting different transport speeds according to the types of recording media (Hino et al. , Fig. 7-12 and the paragraph bridging cols 8 and 9). Hino et al. does not teach clearly the setting different transport speeds on the part of the return path. Johdai et al. teaches the controller 300 for setting different transport speeds for the refeeding path or the return path 40 as shown in Figs. 33-35d. In view of the teaching of Johdai et al., it would have been obvious to one of ordinary skill in the art to modify the controller of Hino et al. by providing the controller which controls the transport speed for the recording media in the return path as taught by Johdai et al to improve the efficiency of transporting a recording media to a printing unit. With respect to claims 9,

16 and 17, the selection of a desired speed which is slower or faster than a predetermined speed or other speed of the recording media would be obvious through routine experimentation in order to permit more precise control the feeding of a recording media in an image forming apparatus.

Claims 2-7 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Hino et al. in view of Johdai et al. as applied to claims 1 and 8-17 above, and further in view of Kato et al. (JP 11-208962).

With respect to claims 2 and 4, Hino et al. and Johdai et al. teaches all that is claimed, except the thickness sensor and the stiffness sensor which are not clearly shown. However, the use of the thickness sensor and stiffness sensor in an image forming apparatus is well known in the art as exemplified by Kato et al. for example. Kato et al. teaches the conventional use of the media thickness sensor 22 and the stiffness sensor 10,41 as shown in Figs.2 and 3 of Kato et al. In view of the teaching of Kato et al., it would have been obvious to one of ordinary skill in the art to modify the image forming apparatus of Hino et al. and Johdai et al. by providing the thickness sensor and the stiffness sensor for sensing the thickness and the stiffness of the recording medium as taught by Kato et al. for maintaining optimum print quality. With respect to claims 3 and 5, the selection of a desired speed based on the predetermined thickness or the predetermine stiffness of the recording media would be obvious through routine experimentation in order to permit more precise control the feeding of the recording media. With respect to claims 6 and 7, Hino et al. teaches that the transport speed of the recording media can be changed based on the temperature in the image fixation (Hino et al. , col.8, lines 62-65).

Allowable Subject Matter

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach the control unit which compares the image forming transport speed of the recording medium with a first speed, compares the fusing temperature with a predetermined temperature, selects second speed faster than the first speed if the image forming transport speed is equal to or greater than the first speed and the fusing temperature is less than the predetermined temperature, selects a third speed slower than the second speed if the image forming transport speed is less than the first speed or the fusing temperature is equal to or greater than the predetermined temperature.

Conclusion

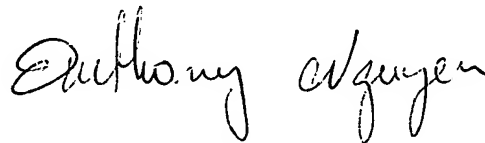
The patents to Nagamine et al., yokobori et al., Okitsu et al., Maruyama, Hachisuga and Kataoka are cited to show other structures having obvious similarities to the claimed structure.

Art Unit: 2854

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Nguyen whose telephone number is (571) 272-2169. The examiner can normally be reached daily from 9 AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld, can be reached on (571) 272-2168.

The fax phone number for this Group is (703) 872-9306.

A handwritten signature in black ink that reads "Anthony Nguyen". The signature is written in a cursive, flowing style.

Anthony Nguyen
02/17/2005
Patent Examiner
Technology Center 2800